

**Montana Board of Oil and Gas Conservation
Environmental Assessment**

Operator: Plain Energy USA, LLC
Well Name/Number: Plain Kevin 03-12-35N-04W
Location: NE NW Section 12T35N R4W
County: Toole, **MT;** **Field (or Wildcat)** W/C

Air Quality

(possible concerns)

Long drilling time: 15 to 20 days drilling time.

Unusually deep drilling (high horsepower rig): No, double derrick hydraulic top head drive drilling rig for a 4800' TD vertical hole, Cambrian Formation test.

Possible H2S gas production: Yes possible H2S.

In/near Class I air quality area: No, no Class I air quality area.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☐ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: Double derrick drilling rig to drill a vertical hole to 4800' TD in the Cambrian Formation.

Water Quality

(possible concerns)

Salt/oil based mud: Use freshwater and freshwater mud system on surface and mainhole to total depth, 4800'.

High water table: None anticipated.

Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral tributary drainage to Springs Coulee, about adjacent to the east side of this location.

Water well contamination: No, closest water wells are about 1/16 of a mile to the south, 1/8 of a mile to the east, 1/4 of a mile to the north, 1/4 of a mile to the southeast, 3/8 of a mile to the southeast, 1/2 of a mile to the southwest, 1/2 of a mile to the west, 3/4 of a mile to the southeast, 3/4 of a mile to the northeast and 7/8 of a mile to the southwest from this location. Depth of these stock and domestic water wells are 47' and 234'. Surface casing hole will be drilled with freshwater and freshwater muds to 530' and steel surface casing run and cemented to surface.

Porous/permeable soils: No, sandy silty bentonitic soils.

Class I stream drainage: No Class I stream drainage.

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

☐ Other: _____

Comments: 530' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used on surface hole.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: None anticipated.

High erosion potential: No, moderate cut, up to 21.7' and moderate fill required up to 12.7', required.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, large, 350'X320' location size required.

Damage to improvements: Slight, surface use is grassland.

Conflict with existing land use/values: Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☐ Other _____

Comments: Using existing county road, Rim Road. Access off existing county road, approximately 11,750' of new road will be constructed into this location. Cuttings will mixed buried in the earthen reserve pit. Drilling fluids will be allowed to dry in the earthen pit before solids are mixed buried. No special concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residences, none within 1 mile in any direction from this wellsite. The town of Kevin, Montana is about 7 miles to the southeast from this location.

Possibility of H₂S: Possible H₂S.

Size of rig/length of drilling time: Double derrick drilling rig 15 to 20 days drilling time.

Mitigation:

☒ Proper BOP equipment

☐ Topographic sound barriers

☒ H₂S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: No concerns, proper BOP stack (Hydril and Double Ram 3000psig) and adequate surface casing (530') should be able to control any problem that occurs.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None, identified

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Species identified as threatened or endanger in Toole County is the Black-footed Ferret. Candidate species is the Sprague's Pipit. NH

tracker website lists two (2) species of concern. They are the Golden Eagle and the Ferruginous Hawk.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☐ Other agency review (DFWP, federal agencies, DSL)
- ☐ Screening/fencing of pits, drillsite
- ☐ Other: _____

Comments: Private surface grasslands. Drilling of this well should not impact any of species listed above. No concerns

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites None identified

Mitigation

- ☐ avoidance (topographic tolerance, location exception)
- ☐ other agency review (SHPO, DSL, federal agencies)
- ☐ Other: _____

Comments: Private surface grasslands. No concerns.

Social/Economic

(possible concerns)

- ☐ Substantial effect on tax base
- ☐ Create demand for new governmental services
- ☐ Population increase or relocation

Comments: No concerns

Remarks or Special Concerns for this site

Well is a vertical hole to 4800' TD vertical Cambrian Formation test.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): \s\Steven Sasaki

(title:) Chief Field Inspector

Date: July 26, 2011

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Toole County water wells
(subject discussed)
July 26, 2011
(date)

US Fish and Wildlife, Region 6 website
(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES
MONTANA COUNTIES, Toole County
(subject discussed)

July 26, 2011
(date)

Montana Natural Heritage Program Website
(Name and Agency)
Heritage State Rank= S1, S2, S3 T35N R4W
(subject discussed)

July 26, 2011
(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____